



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

Application No. : 09/638,032  
Confirmation No. : 5400  
Applicant : T. Kanemitsu  
Filed : Aug. 15, 2000  
Title : Method of producing a rotary member made  
of a metallic plate  
TC/A.U. : 3725  
Examiner : L. A. Larson  
Docket No. : KANE3012/FJD  
Customer No. : 23364

**RESPONSE TO NON-COMPLIANT APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA. 22202-3514

Sir:

In response to the Notice of Non-Compliant Appeal Brief dated August 22, 2006, a revised Appeal Brief is submitted.

Respectfully submitted,

Date: November 22, 2006

Felix J. D'Ambrosio  
Registration No. 25,721

BACON & THOMAS  
625 Slaters Lane, Fourth Floor  
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Phone: (703) 683-0500

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**PATENT**

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**BRIEF ON APPEAL**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA. 22202-3514

Sir:

**INTRODUCTORY COMMENTS**

Pursuant to the provisions of 37 CFR 41.37, submitted herewith is Applicant/Appellant's Brief on Appeal along with the required fee. The period for response has been extended to expire on August 1, 2006, by filing herewith a Petition for a Three Month Extension of Time and payment of the required fee.

Any additional fees necessary for this appeal may be charged to the undersigned's Deposit Account No. 02-0200.

**REAL PARTY IN INTEREST**

(37 CFR 41.37(c)(1)(i))

The real party in interest is Applicant/Appellant's assignee Kabushi Kanemitsu Kaisha. The assignment was recorded on November 4, 1993 at Reel 6910 and Frame 0605.

**RELATED APPEALS AND INTERFERENCES**

(37 CFR 41.37(c)(1)(ii))

There was an earlier appeal with respect to the invention defined in this application. This appeal was decided by the Decision dated June 15, 2000. A copy of the decision is attached in the appropriate Appendix

**STATUS OF CLAIMS**

(37 CFR 41.37(c)(1)(iii))

Claims 1 - 6 were cancelled by the Preliminary Amendment filed on June 18, 2003.

Claims 7 - 12 are pending in this application.

Claims 7 - 12 have been finally rejected.

**STATUS OF AMENDMENTS**

(37 CFR 41.37(c)(1)(iv))

No amendment was filed after issuance of the Office Action of September 1, 2005.

**SUMMARY OF CLAIMED SUBJECT MATTER**

(37 CFR 41.37 (c)(1)(v))

(References are to page and line of the specification)

A method of producing a rotary member made of a metallic plate. For this purpose, a circular, plate-like metallic blank is utilized (page 10, lines 13 and 14). The fabricating sequence is shown in Figs. 1A-7B of the drawings.

In independent claim 7, the method is defined as including the steps of curving and restraining. A blank 1 is placed in a mold-die (2-3), drawn and given

the shape shown in Fig. 1B. It is then placed in the mold-die shown in Figs. 2A-2B (page 11, lines 10-20) and further drawn to the shape shown in Fig. 2B. The sequence proceeds to forming a case-like boss as shown in Figs. 3A-3B to Figs. 6A-6B (page 11, lines 21-25 to page 12, line 16). The bent blank 1 is further bent using progressively different molds 12, 13. As a result, an arcuate portion 1b of the blank 1 is formed, which is squeezed and bent in the direction opposite to the convex direction of the blank 1 (page 12, lines 9-11). As a further result, the arcuate portion 1b is deformed along the outer peripheral surface of each punch 12a, thus forming a case-like boss 6 having a bottom at the center of the blank 1 and an annular flat portion 5 at the outer periphery of the case-like boss 6 (page 12, lines 11-16). Next, the boss 6 is axially compressed (Figs. 6A-6B) such that the bottom 6a becomes flat and is located at a predetermined height (page 12, lines 21-24).

Finally, as shown in Figs. 7A-7B, the blank 1 consisting of the boss 6 and annular flat portion 5 is placed in mold 22-23 and formed to include a peripheral wall 7 at the outer periphery of the annular flat portion 5 (page 14, lines 18 and 19).

In all of these steps, the outer edge of the portion (flange) 5 is restrained. In addition, in forming the peripheral wall 7 the boss 6 is restrained from being deformed. This prevents the material of blank 1 from flowing in both inward and outward directions (page 14, lines 22-25 to page 15, line 4).

In independent claim 8 a second curving step is defined (page 6, lines 2 and 3), according to which a case-like peripheral wall is formed, such that the boss, annular flat portion, and the case-like peripheral wall have substantially the same thickness (page 6, lines 3 - 9 and lines 13 - 23).

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

(37 CFR 41.37(c)(1)(vi))

Claims 7 - 12 are rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement.

The examiner repeats the Board's statement that the specification does not disclose how the metallic blank of the invention is drawn while at the same time producing a rotary member that includes a boss and a flange having the same thickness.

**ARGUMENTS**

(37 CFR 41.37(c)(1)(vii))

(1)

The final rejection states that "the specification does not disclose how the metallic blank of the invention is drawn while at the same time producing a rotary member that includes a boss and a flange having the same thickness, as required by the claims..."

There are two independent claims on appeal, namely, claims 7 and 8. Neither of these claims claim that the plate-like metallic plate is "drawn." Instead, both claims state that the plate-like metallic blank is curved ("curving a plate-like metallic blank"), and then bent ("bending said resulting arcuate portion"). The curving partly produces the boss and the bending completes the formation. Please refer to page 4 of the specification, lines 6 - 14, which tells us:

....curving a metallic blank such that the blank is convex in the direction in which a boss is adapted to project [partial formation]; and bending, with the outer peripheral edge portion of the curved blank restrained from extending radially outwardly, the resulting arcuate portion of the blank in the direction opposite to the convex direction thereof, so that a case-like boss having a bottom and an annular flat portion are formed [complete formation].

The curving and then bending "using a plurality of molds " should not present a problem as to enablement. It is known that an inventor need not explain every detail since he addresses his comments to the person of skill in the art, *In re Howarth*, 210 USPQ 689 (CCPA 1981). The curving step is shown in Figs 1A to 2B. The procedure shown can be done on a punch-press machine, which can be found in just about any machine shop. The curved part shown in Fig, 2B is then bent as shown in Figs 3A to 6B. The result is what is shown in Fig. 6B. The boss is clearly shown as is the flange. Is it necessary for the thickness of the boss and the flange to be the same? No. But here it is as shown in the noted figures. Note also, the disclosure on page 18 of the specification, and in particular lines 3 - 5 , which states that ".....bending operations so that the original thickness of the lank is not decreased so much in the course of the production steps."

Consider page 13, lines 6 - 11 of the specification which state:

This perfectly prevents the material of the blank 1 from flowing in the radially outward direction, but causes the material of the blank 1 to flow toward the case-like boss 6. Accordingly, the case-like boss 6 can be securely thickened and the linear portion of the case-like boss 6 can be securely lengthened.

Page 6, lines 17 - 20 which state:

This restrains the blank from being reduced in thickness due to a plastic flow of the blank

material, thus restraining the strength from being lowered.

And page 18, lines 1 - 4 which state:

.....which has a desired diameter, a desired thickness and ...so that the original thickness of the blank is not decreased.

Forming a rotor from a flat plate (initial configuration) so that the rotor has a boss and a flange each having the same thickness is, it is respectfully submitted, clearly disclosed when the above is considered, so that enablement exists, certainly for the person skilled in the art.

(2)

The declaration of Mr. Takahashi does address the Neumeyer patent . It implies in its averment that the present invention does maintain the same thickness, whereas Neumeyer does not. It's value lies in reveling that what Neumeyer does not do, the present invention does. It should be considered in that light.

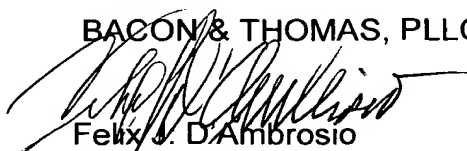
### CONCLUSION

In view of the above, it is respectfully submitted that claims 7 - 12 should be as the disclosure is enabling for the invention as claimed.

Respectfully submitted

BACON & THOMAS, PLLC

Date: August 1, 2006

  
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APPENDIX OF CLAIMS  
(37 CFR 41.37 (c)(1)(viii))

7. In a method of producing a rotary member made of a metallic plate by which there is formed, at the center of a plate-like metallic blank, a case-like boss which projects in one direction from the lateral side of the blank,

said method comprising the steps of:

curving a plate-like metallic blank such that said blank is convex in the direction in which a boss is adapted to project, has a resulting arcuate portion, and an outer peripheral edge portion as well; and

restraining the outer peripheral edge portion of the curved blank from extending radially outwardly while bending said resulting arcuate portion of the curved metallic blank in the direction opposite to the convex direction using a plurality of molds to gradually reduce the boss, so that the boss is case-like having an annular flat portion, such that the boss and annular flat portion have substantially the same thickness.

8. In a method of producing a rotary member made of a metallic plate by which a plate-like metallic blank is processed such that the blank is provided at the center thereof with a case-like boss projecting in one direction from one lateral side of the blank, and at the outer periphery thereof with a case-like peripheral wall concentrically projecting in the same direction in which the case-like boss projects,

said method comprising the steps of:

a first curving step of curving a plate-like metallic blank such that said blank is convex in the direction in which a boss is adapted to project, has a resulting arcuate

portion, and an outer peripheral edge portion as well;

restraining the outer peripheral edge portion of said curved blank from extending radially outwardly, while bending said resulting arcuate portion of the curved metallic blank in the direction opposite to the convex direction using a plurality of molds to gradually reduce the boss, so that the boss is case-like having an annular flat portion; and

a second curving step of pushing, with the case-like boss having the bottom restrained from being deformed, the inner peripheral portion of the annular flat portion in the direction in which said case-like boss projects, so that a case-like peripheral wall is formed, such that the boss, annular flat portion and said case-like peripheral wall have substantially the same thickness.

9. A method of producing a rotary member made of a metallic plate according to claim 8, further comprising the step of:

axially compressing the bottom of the case-like boss formed by said bending, such that said bottom becomes flat and is located at a predetermined projecting height.

10. A method of producing a rotary member made of a metallic plate according to claim 8, further comprising the step of:

axially compressing the case-like boss having the bottom formed by said bending, such that said bottom becomes flat and is located at a predetermined projecting height.

11. A method of producing a rotary member made of a metallic plate according to claim 8, further comprising the step of:

cutting the projecting end portion of the case-like boss having the bottom formed at the bending step after said second curving step, thus forming a shaft insertion hole therein.

12. A method of producing a rotary member made of a metallic plate according to claim 9, further comprising the step of;

cutting the projecting end portion of the case-like boss having the bottom formed at the bending step after said second curving step, thus forming a shaft insertion hole therein.

U.S. Pat. Appl. 09/638,032

EVIDENCE APPENDIX

(37 CFR 41.37(c)(1)(ix))

There is attached a copy of the declaration of Mr. Yasuhiro Takahashi filed in parent application No. 08/146, 005 under 37 CFR 1.132.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of )  
Toshiaki Kanemitsu et al ) Art Unit: 3201  
Serial No. : 08/146,005 ) Ex: L. Larson  
Filed : November 4, 1993 )  
For : METHOD OF PRODUCING A )  
ROTARY MEMBER MADE OF )  
A METALLIC PLATE )

DECLARATION UNDER 37 C.F.R. 1.132

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

I, Yasuhiro TAKAHASHI hereby declares:

1. I graduated from NAGASAKI University, the faculty of Technology, the Mechanical Engineering Course, in March of 1984.

2. I joined Kabushiki Kaisha Kanemitsu in April of 1984, became the chief of the development section, the technical department, in April of 1987, and is now the head of the same section since April of 1991.

3. I have read the above-noted application, as well as a Japanese language translation of German patent No. 304,482 to Fritz Neumeyer. In addition, I have read both Office Actions issued by the examiner on September 8, 1994 (Paper No. 4) and April 18, 1995 (Paper No. 7) in the prosecution of the above-noted application.

4. Starting with Fig. 2 of Neumeyer, it can clearly be seen that the plate has a uniform thickness. In order for this thickness to be maintained in the finished product (Fig. 3), it would be necessary for  $l = v$ . Clearly, this is not the case (see annotated copy of Figs. 2 and 3 attached hereto noted as Enclosure A). Accordingly, the plate wall is stretched in proceeding from Fig. 2 to Fig. 3 and this stretching produces a thinning of the plate wall so that what Neumeyer shows in Fig. 3 is not correct.

5. In Enclosure B, the sequence shown and reported by applicants in their Response of March 8, 1995 is actually what occurs in Neumeyer. Note the thinning of the plate wall in Fig. 2(D).

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: August 25, 1995

YASUHIRO TAKAHASHI  
Yasuhiro TAKAHASHI

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ENCLOSURE A

Fig. 1.

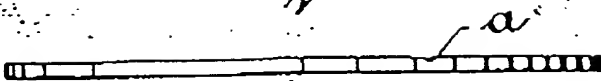


Fig. 2.

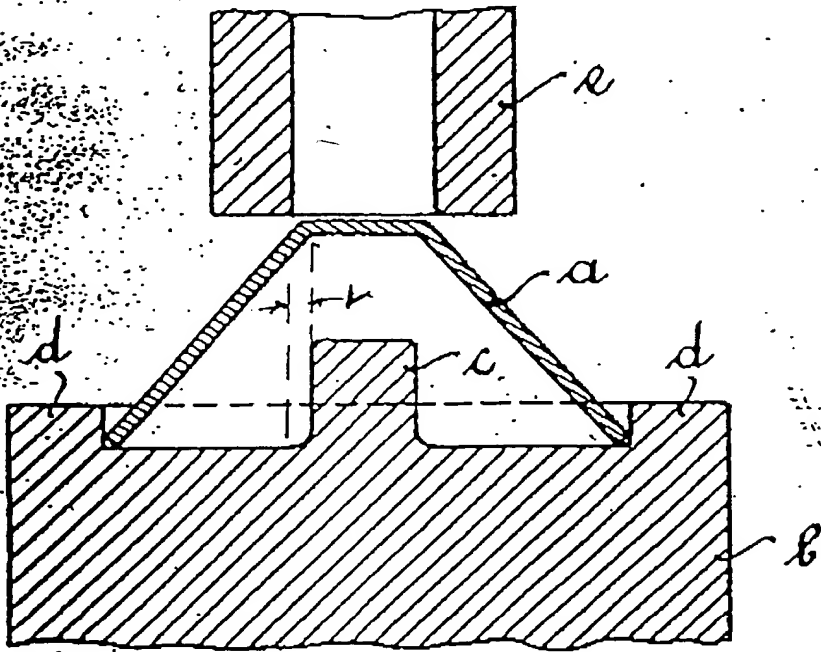


Fig. 3.

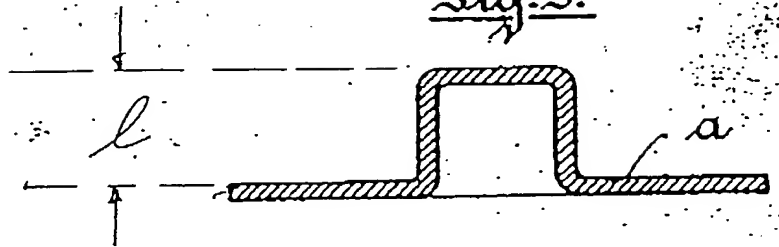
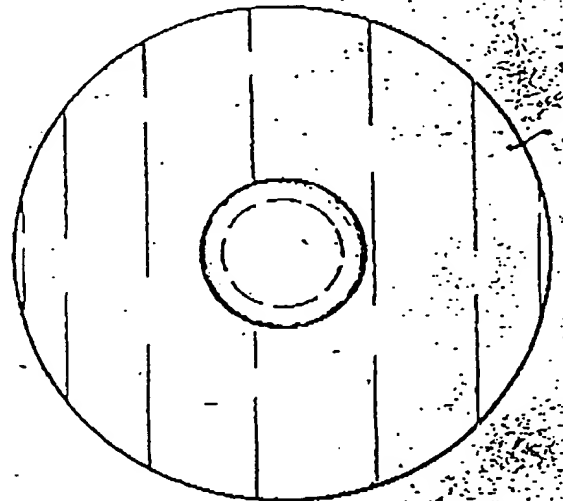


Fig. 4.



ENCLOSURE B

Fig 2 (B)

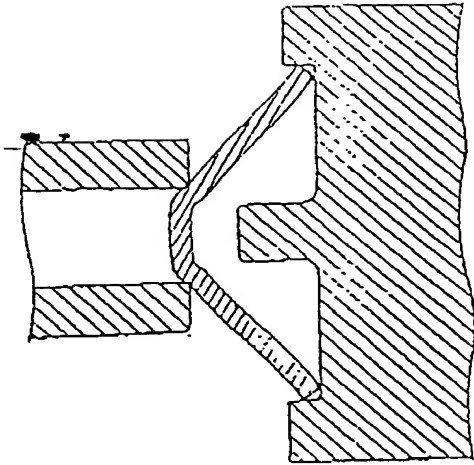


Fig 2 (D)

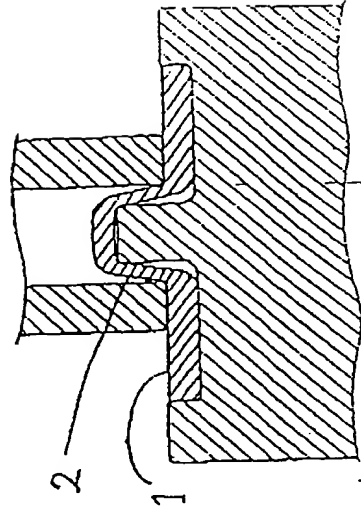


Fig 2 (A)

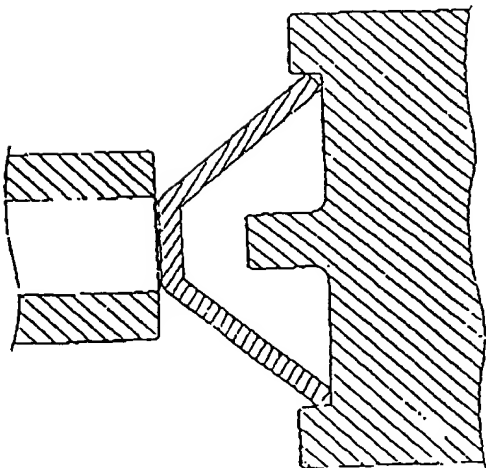
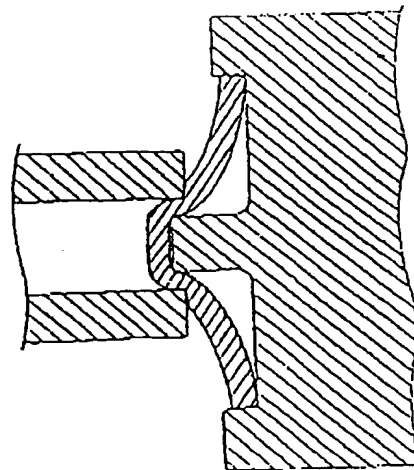


Fig 2 (C)





U.S. Pat. Appl. 09/638,032

**RELATED PROCEEDINGS APPENDIX**

**(37 CFR 41.37(c)(1)(x))**

A copy of the decision of the Board of Appeals dated June 15, 200 is enclosed.

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THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte TOSHIAKI KANEMITSU and KAZUYUKI ODA

Appeal No. 2000-0483  
Application No. 08/841,108

HEARD: MAY 16, 2000

**MAILED**

**JUN 15 2000**

**PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Before CALVERT, FRANKFORT, and GONZALES, Administrative Patent Judges.

GONZALES, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 6, which are all of the claims in the application.

JUN 19 2000

We AFFIRM and enter a new rejection pursuant to 37 CFR  
§ 1.196(b).

The specification describes a method of producing a rotary member used, for example, as an inner wheel of a V-pulley or a rotor of an electromagnetic clutch (specification, page 1). The disclosed method includes the steps of: curving a metallic blank such that the blank is convex in the direction in which a boss is to project and bending, with the outer peripheral edge portion of the curved blank restrained from extending radially outward, the arcuate portion of the blank in the direction opposite to the convex direction thereof, so that a case-like boss having a bottom and an annular flat portion are formed (id. at 4).

A copy of the appealed claims appears in an appendix to the main brief (Paper No. 30).

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:<sup>1</sup>

Neumeyer (German)	304,482	Nov. 7, 1916
Cros & Fils (Cros) (French)	989,543	Sep. 10, 1951

The following rejections are before us for review:

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<sup>1</sup> In determining the teachings of Neumeyer and Cros, we will rely on the translations provided by the PTO. A copy of the translations are attached for the appellants' convenience.

claims 1 through 6 stand rejected under 35 U.S.C. § 112, first paragraph, as being based on a disclosure which, as filed, does not satisfy the description requirement in that paragraph; and,

claims 1 through 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Cros in view of Neumeyer.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 31) for the examiner's complete reasoning in support of the rejections, and to the main and reply briefs (Paper Nos. 30 and 32, respectively) for the appellants' arguments thereagainst.

#### OPINION

We have carefully reviewed the appellants' invention as described in the specification, the appealed claims, the prior art applied by the examiner, and the respective positions advanced by the appellants and the examiner. As a consequence of this review, we have made the determinations which follow.

We find that independent claims 1 and 2 under appeal lack written description support in the original disclosure.<sup>2</sup>

The written description requirement serves "to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not material." In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). In order to meet the written description requirement, the appellants do not have to utilize any particular form of disclosure to describe the subject matter claimed, but "the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Put another way, "the applicant must . . . convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention." Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Finally, "[p]recisely how close the original description must come to comply with the

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<sup>2</sup> We note that each of claims 1 and 2 includes the language "so that the boss is case-like having an annular flat portion." However, the annular flat portion 5 is formed in the blank, not in the boss 6. This informality is worthy of correction upon return of the application to the jurisdiction of the examiner.

description requirement of § 112 must be determined on a case-by-case basis." Eiselstein v. Frank, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (quoting Vas-Cath, 935 F.2d at 1561, 19 USPQ2d at 1116).

The examiner states (Answer, page 3) that "no clear disclosure is found of the boss [6] and annular flat portion [5] having substantially the same thickness" as recited in independent claims 1 and 2.<sup>3</sup> We note, in fact, that claim 2 calls for the boss 6, the annular flat portion 5 and the case-like peripheral wall 7 to have substantially the same thickness.

We have reviewed the originally filed disclosure and note that the "curving" step of claim 1 and the "first curving step" of claim 2 are described at pages 10 and 11 of the specification as drawing steps (see, e.g., page 10, line 22 and page 11, lines 3 and 19).<sup>4</sup> Likewise, the "second curving step" of claim 2 is described at pages 13 and 14 of the specification as a drawing

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<sup>3</sup> The present application was filed on April 30, 1997. The limitations in question were added to claims 1 and 2 by a preliminary amendment filed on June 26, 1997 (Paper No. 23).

<sup>4</sup> In Mechanical Engineers' Handbook (Lionel S. Marks ed., 5th ed., 1951), page 1712 (copy of pp.1712-1716 attached) (hereinafter referred to as Marks), "drawing" is described as including:

. . . operations in which metal is pulled or drawn, in suitable containing tools, from flat sheets or blanks into cylindrical cups or rectangular or irregular shapes, deep or shallow.

step (see, e.g., page 13, line 13 and page 14, line 22). Figures 3A through 6B of the appellants' drawings depict cross-sectional views of the arcuate portion 1b of the blank being squeezed around a circular mandrel or punch 12a.<sup>5</sup> The appellants' specification informs us that during the steps depicted in Figures 3A through 6B, the peripheral edge portion 1e is restrained by the annular projection 12c of lower mold 12 from extending outwardly, preventing the material of the blank from flowing in the radially outward direction and causing the material to flow toward the case-like boss. Thus, according to the appellants' specification, the case-like boss is thickened.

It is clear from the original disclosure that some material flow occurs as a result of the various deforming steps depicted in the appellants' Figures 1A to 7B. Claim 1 calls for the boss 6 and annular flat portion 5 to have substantially the same thickness.<sup>6</sup> Claim 2 calls for the boss 6, the annular flat portion 5 and the peripheral wall 7 to have substantially the

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<sup>5</sup> Marks, at page 1714, describes "squeezing" as a group of metal working operations in which the metal is worked in compression.

<sup>6</sup> At the oral hearing, the appellants indicated that the words "substantially the same thickness" mean equal thickness and minor or inconsequential deviations therefrom (see, also, the main brief, page 9, wherein the appellants argue that one of the differences between the claimed invention and the applied prior art is that the prior art lacks a bending step that would result in a rotary member with a boss and flange of equal thickness).

same thickness. We find no express teaching in the original disclosure, including the original claims, that at the end of the appellants' process the boss 6 and the annular flat portion 5 or the boss 6, the annular flat portion 5 and the peripheral wall 7 have substantially the same thickness.

Instead of an express disclosure, a disclosure may be inherent. In order for a disclosure to be inherent, however, the missing descriptive matter must necessarily be present in the original disclosure of the application such that one skilled in the art would recognize such a disclosure. See Continental Can Co. USA v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). There is nothing in the original disclosure suggesting, much less necessarily requiring, that the boss 6 and the annular flat portion 5 or the boss 6, the annular flat portion 5 and the peripheral wall 7 have substantially the same thickness at the end of the appellants' process. At best, the original disclosure teaches that the original thickness of the blank is not decreased "so much" (Specification, page 18) in the course of production, but that is hardly a teaching that the boss, the annular flat portion and the peripheral wall have substantially the same thickness at the end of the process.



Therefore, we find no inherent teaching in the original disclosure of the limitations of claims 1 and 2 in question.

For the reasons set forth above, the original disclosure of the application does not provide written description support for the later-claimed subject matter of the claims under appeal.

The appellants cite (Main Brief, pages 7-8) specific passages from pages 6, 13 and 18 of the specification and argue that ". . . the specification is sufficiently clear to support [the] boss-flange thickness feature of the invention . . . ." For the reasons set forth above, we disagree.

In view of the above, we affirm the rejection of the appellants' claims 1 and 2 under 35 U.S.C. § 112, first paragraph. Since claims 3 and 6, dependent on claim 1, and claims 4 and 5, dependent on claim 2, include the language of their respective parent claims, it follows that the rejection of claims 3 through 6 is likewise affirmed.

We will not sustain the standing rejection of claims 1 through 6 under 35 U.S.C. § 103.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness

is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

With this as background, we turn to the examiner's rejection of claims 1 through 6 under 35 U.S.C. § 103 as being unpatentable over Cros in view of Neumeyer.

The examiner determined that Cros discloses shaping a plate-like blank to form a rotary member product having a central boss and a concentric peripheral wall by incremental drawing steps using plural molds (Answer, page 4). The examiner describes Neumeyer as disclosing the preliminary step of forming a convex profile in a plate-like blank which is subsequently shaped by

bending in a mold having a shoulder d to restrain the outer peripheral edge of the blank and notes Neumeyer's teaching that as a result of the preliminary formation of the convex profile, the material of the blank is only slightly thinned and excessive stressing or tearing of the material is prevented. The examiner concluded that "[i]t would have been obvious . . . to form the Cros boss by the forming steps taught by Neumeyer, i.e., by first forming a convex profile and subsequently bending in a mold with restraint of the outer peripheral edge, following the suggestion of Neumeyer . . . " (id.)

The appellants argue (Main Brief, page 6) that Cros stretches the boss during the stamping steps depicted in Cros' Figures 7-10 and, as a result, the wall thickness of the boss and that of the flange is no longer equal.<sup>7</sup> The appellants also argue (id. at 6-7) that Neumeyer's flange will thicken relative to the boss as the die e bends disk a over the mandrel c.

We note that Neumeyer specifically teaches that the bore of the die e exceeds the diameter of the mandrel c by an amount equal to the thickness of the disk a which prevents the stretching of the material of the plate a (Translation, pages 2-

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<sup>7</sup> According to Marks, page 1716, "stamping" is a type of squeezing operation.

3). Thus, while we do not necessarily agree with the appellants' characterization of Neumeyer, we do agree with the appellants' argument (Main Brief, page 9) that neither reference necessarily teaches nor suggests a boss and flange of equal thickness.

Neumeyer discloses a preliminary step in which the blank a is put in a press to form an arcuate portion. We understand that the "pressing" operation referred to in Neumeyer is actually a drawing operation. It is a known fact that plastic flow is a characteristic of all drawing operations.<sup>8</sup> In fact, Neumeyer acknowledges (Translation, page 2) that the blank undergoes a slight change in thickness as a result of this preliminary step. We also conclude, based on Cros' drawings, that the transformation of the flat metal blank shown in Figure 2 to the stamping e depicted in Figure 13 necessarily requires some stretching or thinning of the blank. Thus, plastic flow is an inherent result of the processes disclosed in the applied references. To what extent the material flows in either reference is a matter of speculation. Certainly, there is no clear teaching or suggestion in either Cros or Neumeyer that the boss b and annular flat portion a<sup>1</sup> shown in Figure 10 of Cros or

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<sup>8</sup> Myron L. Begeman et al. Manufacturing Processes 234 (1963). For the appellants' convenience, a copy of pages 232-237 are enclosed with this decision.

the boss and annular flat portion shown in Figure 3 of Neumeyer have substantially the same thickness. Thus, the rejection is founded on speculation rather than on fact. While we appreciate that Neumeyer teaches that as a result of the process disclosed therein the material is "only slightly thinned" (Translation, page 2), it is our determination that this teaching is no more suggestive of the boss and annular flat portion having substantially the same thickness than the appellants' teaching that the original thickness is "not decreased so much" (Specification, page 18).

Further, contrary to the examiner's suggestion, Neumeyer does not teach that providing an outer edge d of the die that is higher than the edge of the plate a will prevent stretching of the material. Rather, Neumeyer teaches (Translation, pages 2-3) that stretching of the material is prevented as a result of the bore of the press die e exceeding the diameter of the mandrel c by an amount equal to the thickness of the disk a and that outer edge d keeps the edge of the plate a from "evading" (moving).

At any rate, even if it had been obvious to a person of ordinary skill in the art to provide an outer edge about the clamping flange h in Cros higher than the edge of the plate or blank a in order to prevent the edge of the plate from moving, as

suggested by Neumeyer, it does not follow that the stamping e in Cros' Figure 13 would necessarily have had a boss b and flange of equal thickness.

In light of the foregoing, we will not sustain the standing 35 U.S.C. § 103 rejection of claims 1 through 6.

NEW GROUND OF REJECTION

In accordance with our authority under 37 CFR § 1.196(b), this panel of the board introduces the following new ground of rejection.

Claims 1 through 6 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

An analysis of whether the claims under appeal are supported by an enabling disclosure requires a determination of whether that disclosure contained sufficient information regarding the subject matter of the appealed claims as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with

information known in the art without undue experimentation. See United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

All of the claims call for curving a plate-like metallic blank such that the blank is convex and restraining the outer peripheral edge portion of the curved blank from extending radially outward while bending the blank in a direction opposite to the convex direction using a plurality of molds to gradually reduce the boss to form a case-like boss and an annular flat portion, the boss and annular flat portion having substantially the same thickness. The specification describes the "curving" step illustrated in Figures 1A-2B as a drawing operation. It is well known in the art that all drawing operations involve material flow.<sup>9</sup> The specification does not teach how the metallic blank can be drawn, while at the same time producing a final rotary member which includes a boss and an annular flange of equal thickness.

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<sup>9</sup> See footnote 7, supra.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1 through 6 under 35 U.S.C. § 112, first paragraph, is affirmed, but the decision of the examiner to reject claims 1 through 6 under 35 U.S.C. § 103 is reversed.

Additionally, this panel of the board has introduced a new ground of rejection pursuant to 37 CFR § 1.196(b).

Since at least one rejection of each of the appealed claims has been affirmed, the decision of the examiner is affirmed.

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision. . . .

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of



the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

AFFIRMED  
37 CFR 1.196(b)

BOARD OF PATENT  
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